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[6450-01-P]

DEPARTMENT OF ENERGY

[Case Number 2018-009; EERE-2018-BT-WAV-0013]

**Energy Conservation Program: Decision and Order Granting a Waiver to TCL Air
Conditioner (zhongshan) Co., Ltd. from the Department of Energy Central Air
Conditioners and Heat Pumps Test Procedure**

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of decision and order.

SUMMARY: The U.S. Department of Energy (“DOE”) gives notice of a Decision and Order (Case Number 2018-009) that grants to TCL air conditioner (zhongshan) Co., Ltd. (“TCL AC”), a waiver from specified portions of the DOE test procedure for determining the energy efficiency of specified central air conditioners and heat pumps. TCL AC is required to test and rate specified basic models of its central air conditioners and heat pumps in accordance with the alternate test procedure specified in the Decision and Order.

DATES: The Decision and Order is effective on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. The Decision and Order will terminate upon the compliance date of any future amendment to the test procedure for central air conditioners and heat pumps located at 10 CFR part 430, subpart B, appendix M that addresses the issues presented in this waiver. At such time, TCL AC must use the relevant test procedure for this product for any testing to demonstrate compliance with the applicable standards, and any other representations of energy use.

FOR FURTHER INFORMATION CONTACT:

Ms. Lucy deButts, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. E-mail: *AS_Waiver_Requests@ee.doe.gov*.

Mr. Pete Cochran, U.S. Department of Energy, Office of the General Counsel, Mail Stop GC-33, Forrestal Building, 1000 Independence Avenue SW., Washington, DC 20585-0103. Telephone: (202) 586-9496. Email: *peter.cochran@hq.doe.gov*.

SUPPLEMENTARY INFORMATION:

In accordance with Title 10 of the Code of Federal Regulations (10 CFR 430.27(f)(2)), DOE gives notice of the issuance of its Decision and Order as set forth below. The Decision and Order grants TCL AC a waiver from the applicable test procedure at 10 CFR part 430, subpart B, appendix M for specified basic models of central air conditioners and heat pumps, provided that TCL AC tests and rates such products using the alternate test procedure specified in the Decision and Order. TCL AC's representations concerning the energy efficiency of the specified basic models must be based on testing according to the provisions and restrictions in the alternate test procedure set forth in the Decision and Order, and the representations must fairly disclose the test results. Distributors, retailers, and private labelers are held to the same requirements when making representations regarding the energy efficiency of these products. (42 U.S.C. 6293(c))

Consistent with 10 CFR 430.27(j), not later than **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, any manufacturer currently

distributing in commerce in the United States products employing a technology or characteristic that results in the same need for a waiver from the applicable test procedure must submit a petition for waiver. Manufacturers not currently distributing such products in commerce in the United States must petition for and be granted a waiver prior to the distribution in commerce of those products in the United States. Manufacturers may also submit a request for interim waiver pursuant to the requirements of 10 CFR 430.27.

Signed in Washington, DC, on March 25, 2019.

A handwritten signature in black ink, appearing to read "S. Chalk", is written over a solid horizontal line.

Steven Chalk
Acting Deputy Assistant Secretary
for Energy Efficiency
Energy Efficiency and Renewable Energy

Case Number 2018-009

Decision and Order

I. Background and Authority

The Energy Policy and Conservation Act of 1975, as amended (“EPCA”),¹ among other things, authorizes the U.S. Department of Energy (“DOE”) to regulate the energy efficiency of a number of consumer products and industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B² of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency for certain types of consumer products. These products include central air conditioners (CACs) and heat pumps (HPs), the focus of this document. (42 U.S.C. 6292(a)(3))

Under EPCA, DOE’s energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6291), energy conservation standards (42 U.S.C. 6295), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

The Federal testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s)), and (2)

¹ All references to EPCA in this document refer to the statute as amended through America’s Water Infrastructure Act of 2018, Public Law 115-270 (October 23, 2018).

² For editorial reasons, upon codification in the U.S. Code, Part B was redesignated as Part A.

making representations about the efficiency of that product (42 U.S.C. 6293(c)). Similarly, DOE must use these test procedures to determine whether the product complies with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE is required to follow when prescribing or amending test procedures for covered products. EPCA requires that any test procedures prescribed or amended under this section must be reasonably designed to produce test results which reflect energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use and requires that test procedures not be unduly burdensome to conduct. (42 U.S.C.6293(b)(3)) The test procedure for central air conditioners and heat pumps is contained in the Code of Federal Regulations (“CFR”) at 10 CFR part 430, subpart B, appendix M, *Uniform Test Method for Measuring the Energy Consumption of Central Air Conditioners and Heat Pumps* (“Appendix M”).

Under 10 CFR 430.27, any interested person may submit a petition for waiver from DOE’s test procedure requirements. DOE will grant a waiver from the test procedure requirements if DOE determines either that the basic model for which the waiver was requested contains a design characteristic that prevents testing of the basic model according to the prescribed test procedures, or that the prescribed test procedures evaluate the basic model in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. 10 CFR 430.27(f)(2). DOE may grant the waiver subject to conditions, including adherence to alternate test procedures. *Id.*

II. TCL AC's Petition for Waiver: Assertions and Determinations

By letter dated July 10, 2018, TCL AC submitted a petition for waiver and application for interim waiver for certain basic models of CACs and HPs. TCL AC stated that the systems use outdoor units with variable-speed compressors paired with coil-only indoor units (hereinafter referred to as “variable-speed coil-only single-split systems”), and are required to be tested using the test procedure detailed at appendix M to subpart B of 10 CFR part 430 (“Appendix M”). TCL AC stated in its petition for waiver and application for interim waiver that Appendix M does not include provisions for determining cooling intermediate air volume rate, cooling minimum air volume rate, and heating intermediate air volume rate for the variable-speed coil-only single-split systems specified in its petition. Consequently, TCL AC asserted that it cannot test or rate these systems in accordance with the DOE test procedure.

On November 9, 2018, DOE published a notice that announced its receipt of the petition for waiver and granted TCL AC an interim waiver for specified basic models. 83 FR 56058 (“Notice of Petition for Waiver”). In the Notice of Petition for Waiver, DOE stated that absent an interim waiver, the specified variable-speed coil-only single-split models cannot be tested under the existing test procedure because Appendix M does not include provisions for determining certain air volume rates for variable-speed coil-only single-split systems. 83 FR 56060. Typical variable-speed single-split systems have a communicating system, *i.e.*, the condensing units and indoor units communicate and indoor unit air flow varies based on the operation of the outdoor unit. However, as presented in TCL AC's petition, its variable-speed outdoor units are non-communicative systems and the indoor blower section maintains a constant

indoor blower fan speed. DOE also reviewed public-facing materials (*e.g.*, marketing materials, product specification sheets, and installation manuals) for the units identified in the petition, which supported TCL AC's assertion that the units are installed as variable-speed coil-only systems, in which the indoor fan speed remains constant at full and part-load operation. Using the cooling full-load air volume rate for the cooling intermediate and cooling minimum air volume rates, and the heating full load air volume rate as the heating intermediate air volume rate appears appropriate because there is no variability in indoor fan speed. Thus, DOE determined that the alternate test procedure suggested by TCL AC allows for the accurate measurement of energy use of these products, while alleviating the testing problems associated with TCL AC's implementation of CAC and HP testing for the basic models specified in TCL AC's petition. *Id.*

In the Notice of Petition for Waiver, DOE solicited comments from interested parties on all aspects of the petition and the specified alternate test procedure *Id.* DOE received no comments in response to the Notice of Petition for Waiver.

For the reasons explained here and in the Notice of Petition for Waiver, DOE understands that absent a waiver, the basic models identified by TCL AC in its petition cannot be evaluated on a basis representative of their true energy consumption characteristics. DOE has reviewed the recommended procedure suggested by TCL AC and concludes that it will allow for the accurate measurement of the energy use of the products, while alleviating the testing problems associated with TCL AC's implementation of DOE's applicable CAC and HP test procedure for the specified basic models. Thus, DOE is requiring that TCL AC test and rate the specified CAC

and HP basic models according to the alternate test procedure specified in this Decision and Order, which is identical to the procedure provided in the interim waiver.

This Decision and Order is applicable only to the basic models listed and does not extend to any other basic models. DOE evaluates and grants waivers for only those basic models specifically set out in the petition, not future models that may be manufactured by the petitioner.

TCL AC may request that the scope of this waiver be extended to include additional basic models that employ the same technology as those listed in this waiver. 10 CFR 430.27(g). TCL AC may also submit another petition for waiver from the test procedure for additional basic models that employ a different technology and meet the criteria for test procedure waivers. 10 CFR 430.27(a)(1).

DOE notes that it may modify or rescind the waiver at any time upon DOE's determination that the factual basis underlying the petition for waiver is incorrect, or upon a determination that the results from the alternate test procedure are unrepresentative of the basic models' true energy consumption characteristics. 10 CFR 430.27(k)(1). Likewise, TCL AC may request that DOE rescind or modify the waiver if the company discovers an error in the information provided to DOE as part of its petition, determines that the waiver is no longer needed, or for other appropriate reasons. 10 CFR 430.27(k)(2).

III. Consultations with Other Agencies

In accordance with 10 CFR 430.27(f)(2), DOE consulted with the Federal Trade Commission (“FTC”) staff concerning the TCL AC petition for waiver. The FTC staff did not have any objections to DOE granting a waiver to TCL AC for the specified basic models.

IV. Order

After careful consideration of all the material that was submitted by TCL AC, and the various public-facing materials (*e.g.*, marketing materials, product specification sheets, and installation manuals) for the models identified in the petition, in this matter, it is **ORDERED** that:

(1) TCL AC must, as of the date of publication of this Order in the *Federal Register*, test and rate the TCL air conditioner (zhongshan) Co., Ltd. brand and Ecoer Inc. brand single-split CAC and HP basic models TCE–36HA/ DV20 and TCE–60HA/DV20, which are comprised of the individual combinations listed below,³ with the alternate test procedure as set forth in paragraph (2):

Brand	Basic Model Number	Outdoor Unit	Indoor Unit
TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-2430D6HWA/DVOE(01)

³ The specified basic models contain individual combinations, which do not specify a particular air mover, and that each consist of an outdoor unit that (1) uses a variable speed compressor matched with a coil-only indoor unit, and (2) is designed to operate as part of a non-communicative system in which the compressor speed varies based only on controls located in the outdoor unit such that the indoor blower unit maintains a constant indoor blower fan speed.

TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-2430D6HWA/DVOE(02)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-3036D6HWA/DVOE(02)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-2430D6HWA/DV2I(01)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-2430D6HWA/DV2I(02)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-3036D6HWA/DV2I(01)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-3036D6HWA/DV2I(02)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-36HA/DV20	TCE-36HA/DV20	TCE-3036D6HWA/DV2I(03)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4248D6HWA/DVOE(03)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4860D6HWA/DVOE(03)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4860D6HWA/DVOE(04)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4248D6HWA/DV2I(02)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4248D6HWA/DV2I(03)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4248D6HWA/DV2I(04)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4860D6HWA/DV2I(03)
TCL air conditioner (zhongshan) Co., Ltd.	TCE-60HA/DV20	TCE-60HA/DV20	TCE-4860D6HWA/DV2I(04)
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	GNC2430APT
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	GNC2430BPT
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	GNC3036BPT
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	EACT2430A
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	EACT2430B
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	EACT3036A
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	EACT3036B
Ecoer Inc.	TCE-36HA/DV20	EODA18H-2436	EACT3036C
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	GNC4248CPT
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	GNC4860CPT
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	GNC4860DPT
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	EACT4248B
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	EACT4248C
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	EACT4248D
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	EACT4860C
Ecoer Inc.	TCE-60HA/DV20	EODA18H-4860	EACT4860D

(2) The alternate test procedure for the TCL AC basic models identified in paragraph (1) of this Order is the test procedure for central air conditioners and heat pumps prescribed by DOE at 10 CFR part 430, subpart B, appendix M (“Appendix M”), except that as described below, for coil-only combinations: the cooling full-load air volume rate as determined in section 3.1.4.1.1.c of Appendix M shall also be used as the cooling intermediate and cooling minimum air volume rates, and the heating full-load air volume rate as determined in section 3.1.4.4.1.a of Appendix M shall also be used as the heating intermediate air volume rate. All other requirements of Appendix M and DOE’s regulations remain applicable.

In 3.1.4.2, *Cooling Minimum Air Volume Rate*, include:

- f. For ducted variable-speed compressor systems tested with a coil-only indoor unit, the cooling minimum air volume rate is the same as the cooling full-load air volume rate determined in section 3.1.4.1.1.c.

In 3.1.4.3, *Cooling Intermediate Air Volume Rate*, include:

- d. For ducted variable-speed compressor systems tested with a coil-only indoor unit, the cooling intermediate air volume rate is the same as the cooling full-load air volume rate determined in section 3.1.4.1.1.c.

In 3.1.4.6, *Heating Intermediate Air Volume Rate*, include:

- d. For ducted variable-speed compressor systems tested with a coil-only indoor unit, the heating intermediate air volume rate is the same as the heating full-load air volume rate determined in section 3.1.4.4.1.a.

(3) *Representations.* TCL AC may not make representations about the efficiency of the basic models referenced in paragraph (1) of this Order for compliance, marketing, or other purposes unless the basic model has been tested in accordance with the provisions set forth above and such representations fairly disclose the results of such testing.

(4) This waiver shall remain in effect according to the provisions of 10 CFR 430.27.

(5) This waiver is issued on the condition that the statements, representations, and documents provided by TCL AC are valid. If TCL AC makes any modifications to the controls or configurations of these basic models, the waiver will no longer be valid and TCL AC will either be required to use the current Federal test method or submit a new application for a test procedure waiver. DOE may rescind or modify this waiver at any time if it determines the factual basis underlying the petition for waiver is incorrect, or the results from the alternate test procedure are unrepresentative of the basic models' true energy consumption characteristics.

10 CFR 430.27(k)(1). Likewise, TCL AC may request that DOE rescind or modify the waiver if TCL AC discovers an error in the information provided to DOE as part of its petition, determines that the waiver is no longer needed, or for other appropriate reasons. 10 CFR 430.27(k)(2).

(6) Granting of this waiver does not release TCL AC from the certification requirements set forth at 10 CFR part 429.

Signed in Washington, DC, on March 25, 2019.

A handwritten signature in black ink, appearing to read "S. Chalk", written over a horizontal line.

Steven Chalk
Acting Deputy Assistant Secretary
for Energy Efficiency
Energy Efficiency and Renewable Energy